Collapse of 4 storied building in Begunbari---A pictorial case study

Md. Nurul Alam Project Coordinator/Structural Engineer,
ADPC

Overview

- Date: June 01, 2010
- Time: 11 PM Local time
- Location: 18/B, Moddho Begunbari Post Office
- Type of Building collapsed: RCC (LC-Non-Engineered), 4 storied
- Construction year of the building: 1999
- Casualty: 19 died as on June 02, 2010, number of casualty may increase

Paper Clippings of June 02, 2010



LC building collapsed on a tin-shed building



Missing of Sufficient Ties in columns



Narrow Access route made the response work difficult



The Structure was built on a recently filled land



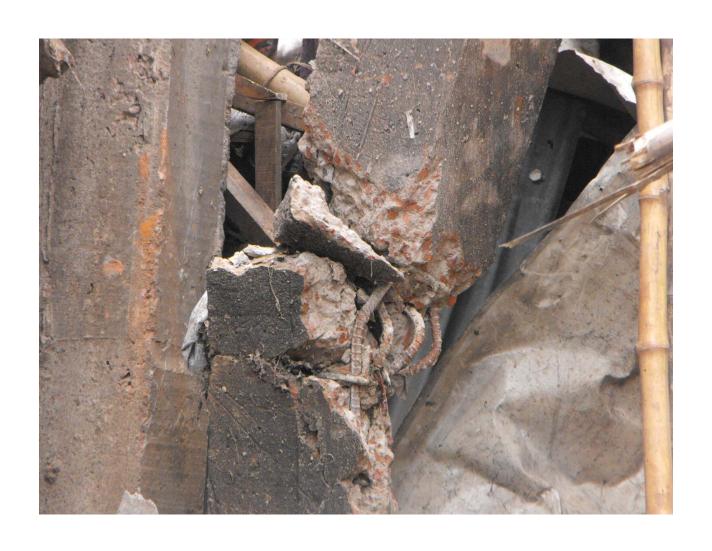
(Ground Floor)Soft Storey Effect!



Bad Choice of Construction materials



Brittle failure



Bad connection to the ground



Short Column Effect

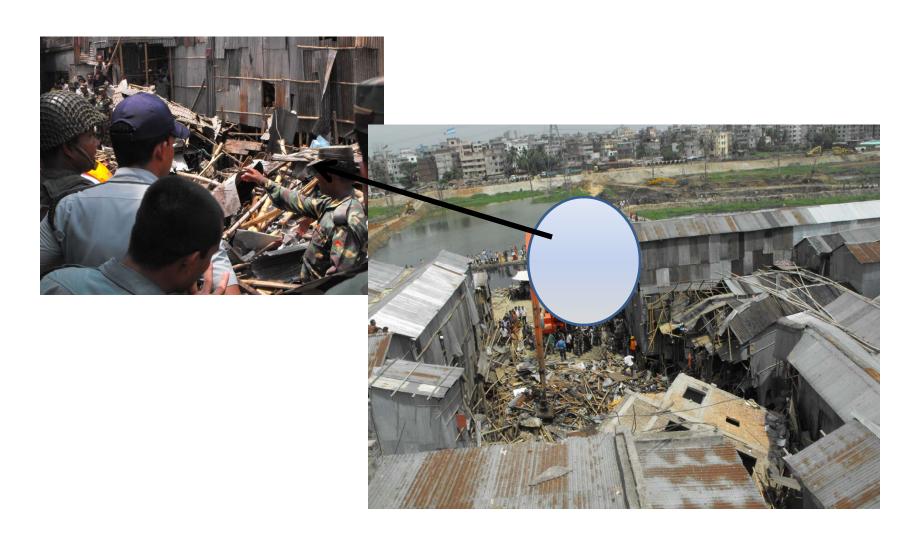


Remarks

The reasons behind the collapse of the building may be listed as follows:

- Improper site selection, even the land was filled with garbage instead of soil.
- Some heavy construction material were stored in the top floor of the building, which might lead the collapse.
- Low stiffness of the ground floor (GF soft) might lead to the collapse.
- Foundation was not designed properly and the connection between the column and the base was not adequate.

FSCD, Police, AFD, BDRCS, Ansar, community volunteers all were involved in the S&R operations, but still the collapsed building could not be removed.



It is not a special case in the area. Still there are so many vulnerable structures in the particular place!

